

REMARKS

Claims 21 to 34 are added, and therefore claims 11 to 34 are now pending and being considered.

Reconsideration is respectfully requested for the reasons set forth below.

Claims 11 to 20 were rejected under 35 U.S.C. §112, first paragraph, as to the enablement requirement.

Contrary to the Office Action's assertions, the specification discloses a structure by which the system can distinguish objects generated before they become visible to the driver. One such structure, as disclosed in the specification, includes at least one image-sensor system for generating optical information to detect objects in the driver's blind spots which would not be directly visible to the driver. In fact, the specification explicitly discloses at least one image-sensor system for detecting a pedestrian in the front blind spot of a truck, stating:

For example, pedestrians who stop directly in front of a truck cannot be directly seen by the driver of the truck. The high, recessed sitting position of the truck driver sharply limits the view of the driver in this surrounding region. The use of at least one image-sensor system for monitoring these surrounding regions of the motor vehicle allows the driver to be informed of the existence of an object in this region by at least one optical warning.

Thus, locating at least one image-sensor system such that it covers a driver's blind spots is one structure disclosed in the specification which can be used to detect objects before they become visible to the driver.

The specification also discloses the use of at least one infrared-sensitive image-sensor system as a second structure by which objects can be detected before they become visible to the driver. As disclosed in the specification, at night and under certain weather conditions, "infrared-sensitive image-sensor systems have a larger range of detection than the driver of a motor vehicle." Incorporating sensors with this larger range of detection into the image-sensor system will enable the system to initially detect objects before they become visible to the driver. Not only does the specification disclose this structure by which objects can be detected before they become visible to the driver, it also quantifies the scope of this enhanced range benefit, stating:

For example, the range of vision of a motor-vehicle driver at night is approximately 40 meters with dimmed headlights, while in the case of good visibility, infrared-sensitive image-sensor systems have an object-detection range between 70 meters and 140 meters.

Thus, the specification discloses a second structure by which it can be determined whether an object is detected before it is visible to the driver.

As further regards the enablement rejections, it is respectfully submitted that the standard for determining whether a patent application complies with the enablement requirement under the first paragraph of 35 U.S.C. § 112 is that the specification describe how to make and use the claimed subject matter. (See M.P.E.P. § 2164). The Supreme Court established the appropriate standard as being whether any experimentation for practicing the claimed subject matter was undue or unreasonable. (See M.P.E.P. § 2164.01 (citing Mineral Separation v. Hyde, 242 U.S. 261, 270 (1916); In re Wands, 858 F.2d 731, 737, 8 U.S.P.Q.2d 1400, 1404 (Fed Cir. 1988))). Thus, the enablement test is “whether one reasonably skilled in the art could make or use the invention from the disclosures in the patent coupled with information known in the art without undue experimentation.” (See id. (citing United States v. Teletronics, Inc., 857 F.2d 778, 785, 8 U.S.P.Q.2d 1217, 1223 (Fed. Cir. 1988))).

The Federal Circuit has made clear that there are many factors to be considered in determining whether a specification satisfies the enablement requirement, and that these factors include but are not limited to the following: the breadth of the claims; the nature of the invention; the state of the prior art; the level of ordinary skill; the level of predictability in the art; the amount of direction provided by the inventor; the existence of working examples; and the quantity of experimentation needed to make or use the invention based on the disclosure. (See id. (citing In re Wands, 858 F.2d at 737, 8 U.S.P.Q.2d at 1404 and 1407)). In this regard, the Federal Circuit has also stated that it is “improper to conclude that a disclosure is not enabling based on an analysis of only one of the above factors,” and that the examiner’s analysis must therefore “consider all the evidence related to each of these factors” so that any nonenablement conclusion “must be based on the evidence as a whole.” (See M.P.E.P. § 2164.01). It is respectfully submitted that the Office Action has not addressed these factors.

Importantly, an examiner bears the initial burden of establishing why the “scope of protection provided by a claim is not adequately enabled by the disclosure.” (See id. (citing In re Wright, 999 F.2d 1557, 1562, 27 U.S.P.Q.2d 1510, 1513 (Fed. Cir. 1993))).

Accordingly, a specification that teaches the manner and process of making and using an invention in terms that correspond in scope to those used in describing and defining the claimed subject matter complies with the enablement requirement. (See id.).

The present assertions of the Office Action do not address whether the present application enables a person having ordinary skill in the art to practice the claimed subject matter of the claims without undue experimentation — which it does. In short, the Office Action's arguments and assertions do not really address the issue of whether one having ordinary skill would have to *unduly experiment* to practice the claimed subject matter of the rejected claims — a proposition for which the Office bears the burden of proving a prima facie case as to the rejected claims.

In this regard, to properly establish enablement or non-enablement, the Office must make use of proper evidence, sound scientific reasoning and the established law. In the case of Ex Parte Reese, 40 U.S.P.Q.2d 1221 (Bd. Pat. App. & Int. 1996), a patent examiner rejected (under the first paragraph of section 112) application claims because they were based on an assertedly non-enabling disclosure, and was promptly reversed because the rejection was based only on the examiner's subjective belief that the specification was not enabling as to the claims. In particular, the subjective assertions of the Office Action are simply not supported by any real “evidence or sound scientific reasoning” — which the law requires and which makes plain that the Office (and not an applicant) bears the burden of persuasion on an enablement rejection.

More particularly, the examiner in Ex parte Reese was reversed because the rejection had only been based on a conclusory statement that the specification did not contain a sufficiently explicit disclosure to enable a person to practice the claimed subject matter without exercising undue experimentation — which the Board found to be merely a conclusory statement that only reflected the subjective and unsupported beliefs of a particular examiner and that was not supported by any proper evidence, facts or scientific reasoning. (See id.). Moreover, the Board made clear that it is “incumbent upon the Patent Office . . . to back up assertions of its own with acceptable evidence,” and also made clear that “[where an] examiner's 'Response to Argument' is not supported by evidence, facts or

sound scientific reasoning, [then an] examiner has not established a *prima facie* case of lack of enablement under 35 U.S.C. § 112, first paragraph.” (See id. at 1222 & 1223; italics in original).

In the present case, the specification discloses two separate structures by which objects can be detected before they are visible to the driver—by using at least one image-sensor system to detect objects in a driver’s blind spots and by using at least one infrared-sensitive image-sensor system to detect objects beyond the driver’s visibility range. The Office Action has not satisfied the foregoing for establishing that undue experimentation would be required to incorporate either structure into the system.

It is therefore respectfully requested that the enablement rejections be withdrawn for all of the above reasons.

Claims 11 to 20 were also rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent Application 2002/0011925 (“Hahn”).

To reject a claim under 35 U.S.C. § 103(a), the Office bears the initial burden of presenting a *prima facie* case of obviousness. *In re Rijckaert*, 9 F.3d 1531, 1532, 28 U.S.P.Q.2d 1955, 1956 (Fed. Cir. 1993). To establish *prima facie* obviousness, three criteria must be satisfied. First, there must be some suggestion or motivation to modify or combine reference teachings. *In re Fine*, 837 F.2d 1071, 5 U.S.P.Q.2d 1596 (Fed. Cir. 1988). This teaching or suggestion to make the claimed combination must be found in the prior art and not based on the application disclosure. *In re Vaeck*, 947 F.2d 488, 20 U.S.P.Q.2d 1438 (Fed. Cir. 1991).

Also, as clearly indicated by the Supreme Court in *KSR*, it is “important to identify a reason that would have prompted a person of ordinary skill in the relevant field to combine the [prior art] elements” in the manner claimed. *See KSR Int’l Co. v. Teleflex, Inc.*, 127 S. Ct. 1727 (2007). In this regard, the Supreme Court further noted that “rejections on obviousness cannot be sustained by mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness.” *Id.*, at 1396. Second, there must be a reasonable expectation of success. *In re Merck & Co., Inc.*, 800 F.2d 1091, 231 U.S.P.Q. 375 (Fed. Cir. 1986). Third, the prior art reference(s) must teach or suggest all of the claim features. *In re Royka*, 490 F.2d 981, 180 U.S.P.Q. 580 (C.C.P.A. 1974).

Independent Claim 11 includes the feature in which the “at least one object [is] situated in a vicinity of the motor vehicle,” and in which the “at least one optical warning is generated at least prior to the at least one object becoming visible to the driver.”

Independent Claim 18 includes the similar feature of “generating the at least one optical warning in the direction of the at least one object in the vicinity of the motor vehicle at least prior to the at least one object becoming visible to the driver.”

While the Office Action concedes that the “Hahn” reference “fails to state that the at least one optical warning is generated at least prior to the at least one object becoming visible to the driver,” its conclusory assertions are not supported by the text or drawings of the “Hahn” reference. Still further, modifying the “Hahn” reference to include this feature is contrary to the understanding and expectation of the “Hahn” reference.

According to the “Hahn” reference, “[a]n object of the present [system] is to find a method and a device which is suitable for carrying out a method for controlling the attention of an operator of technical equipment” (“Hahn” reference, paragraph 6). To accomplish this objective, the “Hahn” reference “provides a method for controlling the attention of an operator of technical equipment, having a display device for displaying action-relevant information in the form of images or symbols, the duration of the display of the specific image or symbol lying below a conscious and above an unconscious perception threshold of the operator” (“Hahn” reference, paragraph 7). The “Hahn” reference asserts that this system provides advantages including “that the operator does not need to turn his/her view away from the scene to be monitored and in that he/she is not unnecessarily disturbed by the representation of information” (“Hahn” reference, paragraph 9). Thus, the “Hahn” system perceived a need to improve the organization and presentation of information to the driver or operator.

The “Hahn” reference details examples (Figures 3 and 4) of how this information can be organized and presented to the driver. Paragraphs 32 and 33 of the “Hahn” reference provide further details of the types of information that can be provided to drivers:

FIG. 3 shows for example the image as in FIG. 2 but solely showing an overlay to be projected on windshield 22 for a period of time lying below a conscious and above an unconscious perception threshold of the operator. Only automobiles 201, 202, and 203 are enhanced in this version.

FIG. 4 shows an alternative to the overlays of FIG. 3, with arrows 320 enhancing automobile 301, frame 321 enhancing automobile 302 and underlining 322 enhancing automobile 303. Street 310 may be enhanced by overlay, for example, or not enhanced. Arrows 320, frame 321 and underlining 322 are displayed for a period of time lying below a conscious and above an unconscious perception threshold of the operator.

All of the “information” provided to drivers as in the “Hahn” reference and shown in these figures relates to objects already visible to the driver, such as automobiles 201, 202, 203, 301, 302, and 303, and street 310. Any speculation that the sensors in “Hahn” reference could detect and display information about objects before they are visible to the driver is unsustainably beyond the scope of the “Hahn” reference. This is because the purpose of the “Hahn” system relates to improving the organization and presentation of information to the driver. If the “Hahn” system actually contemplated distinguishing objects not yet visible to the driver, “Hahn” would have been able to filter out other information presented to the driver so that the driver would not be disturbed by the representation of information without the need for subconscious cues.

Instead of focusing on the improving the organization and presentation of voluminous amounts of potentially “unnecessary” information to the driver, the presently claimed subject matter in effect eliminates the need for the “Hahn” system by focusing on warning a driver of those objects in the vicinity of the vehicle that are not yet visible to the driver. The ability of the presently claimed subject matter to distinguish between objects in the vicinity of the vehicle detected before being visible to the driver greatly reduces the volume of information presented to the driver and thus obviates the need for the “Hahn” system.

In this regard, this situation is similar to Schenck v. Nortron Corp., 713 F.2d 782, 218 U.S.P.Q. 698 (Fed. Cir. 1983). In Schenck, Nortron argued that Schenck’s system was obvious in that it replaced four bolted pieces with “a single integral and gaplessly continuous piece.” *Id.* The prior art perceived a need for mechanisms to dampen resonance, whereas the inventor eliminated the need for dampening altogether. The Court held, “[b]ecause that insight was contrary to the understandings and expectations of the art, the structure effectuating it would not have been obvious to those skilled in the art.” Schenck, 713 F.2d at 785. The insight of the presently claimed subject matter provided by the ability to

distinguish objects detected before being visible to the driver is contrary to the teachings of the “Hahn” reference, which is directed to methods of providing information about objects to drivers to avoid overloading the driver with information..

Even if a difference between the “Hahn” reference and the presently claimed subject matter relates in part to the detection of objects before they are visible to the driver, the question under 35 U.S.C. § 103 is not whether this difference would have been obvious, but whether the claimed subject matter as a whole would have been obvious. Stratoflex, Inc. v. Aeroquip Corp., 713 F.2d 1530, 218 U.S.P.Q. 871 (Fed. Cir. 1983) (emphasis added). Because the “Hahn” reference focuses on presenting information about detected objects to the driver to avoid over-presenting information, such as through the use of subconscious signals, it would not have been obvious to modify the “Hahn” reference so as to distinguish those objects detected before they are visible to the driver, as provided for in the context of the presently claimed subject matter.

Accordingly, claim 11 is allowable, as are its dependent claims 12 to 17.

Claim 18 includes features similar to those of claim 11, and is therefore allowable for reasons like those of claim 11.

Claims 19 and 20 depend from claim 18 and are therefore allowable for at least the same reasons as claim 18.

New claims 21 to 34 do not add any new matter and are supported by the present application, including the specification. Claims 21 to 27 depend from claim 11, and are therefore allowable for the same reasons as claim 11. Claims 29 to 34 depend from claim 18, and are therefore allowable for the same reasons as claim 18. Accordingly, claims 21 to 34 are allowable.

In summary, all of pending claims 11 to 34 are allowable.

CONCLUSION

In view of the foregoing, all pending claims 11 to 34 are allowable. It is therefore respectfully requested that the rejections (and any objections) be withdrawn. Prompt reconsideration and allowance of the present application are therefore respectfully requested.

Respectfully submitted,
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